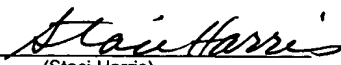


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Dated: November 26, 2003

Signature:

  
(Staci Harris)

Docket No.: HO-P02375US1  
(PATENT)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of:  
Paul R. Heaton, et al.

Application No.: Not Yet Assigned

Group Art Unit: N/A

Filed: October 7, 2003

Examiner: Not Yet Assigned

For: ANTIOXIDANT COMPONENTS FOR  
REDUCTION OF NUCLEIC ACID DAMAGE IN  
COMPANION ANIMALS

**INFORMATION DISCLOSURE STATEMENT (IDS)**

Commissioner for Patents  
Alexandria, VA 22313

Dear Sir:

Pursuant to 37 CFR 1.56, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached PTO/SB/08. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement is filed in conjunction with the filing of the Divisional application on the merits as far as is known to the undersigned.

The patent(s) or publications in the attached form PTO/SB/08 are not supplied because they were previously cited by or submitted to the Office in a prior application No. 10/068,697, filed February 6, 2002 and relied upon in this application for an earlier filing date under 35 U.S.C. 120.

While the information and references disclosed in this Information Disclosure Statement may be "material" pursuant to 37 CFR 1.56, it is not intended to constitute an admission that any patent, publication or other information referred to therein is "prior art" for this invention unless specifically designated as such.


In accordance with 37 CFR 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other

material information as defined in 37 CFR 1.56(a) exists. It is submitted that the Information Disclosure Statement is in compliance with 37 CFR 1.98 and the Examiner is respectfully requested to consider the listed references.

The Commissioner is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 06-2375, under Order No. 10201221.

Dated: November 26, 2003

Respectfully submitted,

By 

Melissa W. Acosta

Registration No.: 45,872

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Substitute for form 1449A/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(use as many sheets as necessary)</i>				<b>Complete if Known</b>	
				Application Number	Not Yet Assigned
				Filing Date	November 26, 2003
				First Named Inventor	Paul R. Heaton
				Art Unit	N/A
				Examiner Name	Not Yet Assigned
Sheet	1	of	3	Attorney Docket Number	HO-P02375US1

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	AA	5937790-	08-17-1999	Ito et al.	
	AB	5895652-	04-20-1999	Giampapa	
	AC	3384545-	05-21-1968	Aiello, Ronald Eugene, et al.	
	AD	2001/0006673-A1	07-05-2001	Hayek	
	AE	6310090-B1	10-30-2001	Hayek	
	AF	6133323-	10-17-2000	Hayek	
	AG	5733884-	03-31-1998	Barbul et al.	
	AH	5834044-	11-10-1998	Schmitz et al.	
	AI	5643623-	07-01-1997	Schmitz et al.	

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
	BA	IB-00/44375-A1	08-03-2000	Mars UK Limited		
	BB	IB-01/17364-A1	03-15-2001	Effem Foods Pty Ltd		
	BC	EP-0 848 955-A1	06-24-1998	Showa Denko Kabushiki Kaisha		
	BD	EP-0 845 216-A1	06-03-1998	Sowa Denko Kabushiki Kaisha		
	BE	IB-00/72698-A1	12-07-2000	The Iams Company		
	BF	IB-01/17364-A1	03-15-2001	Effem Foods Pty Ltd		

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				Filing Date	November 26, 2003
				First Named Inventor	Paul R. Heaton
				Group Art Unit	N/A
				Examiner Name	Not Yet Assigned
Sheet	2	of	3	Attorney Docket Number	HO-P02375US1

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	CA	Bohr, Vilhelm A.; DNA Damage and Its Processing With Aging: Human Premature Aging Syndromes as Model Systems; The Role of DNA Damage and Repair in Cell Aging, B.A. Gilchrest and V.A. Bohr, editors; pages 191 - 206	
	CB	Chew, Boon P., et al.; Carotenoid Supplementation Enhanced Canine and Feline Immunity; Presented at the 16th Annual Veterinary Medical Forum, American College of Veterinary Internal Medicine; San Diego, CA; May 25, 1998; pages 32 - 35.	
	CC	Turek, John J., et al.; Ingestion of Oxidized Lipids Alters Canine Anti-Oxidant Status and Immune Function; pages 12 - 15	
	CD	Moore, Anne S., et al.; The Newest Antioxidant Explained; Research.	
	CE	Greeley, E. H., et al.; The influence of age on the canine immune system; Veterinary Immunology and Immunopathology, Vol. 55, pages 1 - 10, 1996	
	CF	Thomas, James A.; Oxidative Stress, Oxidant Defense, and Dietary Constituents; Chapter 33 in Nutrition in Integrated Biologic Systems; pages 501 - 512	
	CG	Kapahi, Pankaj, et al.; Positive Correlation Between Mammalian Life Span and Cellular Resistance to Stress; Free Radical Biology & Medicine, Vol. 26, Nos. 5/6, pages 495 - 500, 1999	
	CH	Collins, Andrew R., et al.; Serum carotenoids and oxidative DNA damage in human lymphocytes; Carcinogenesis, Vol. 19, No. 12, pages 2159-2162, 1998	
	CI	Barnett, Yvonne, et al.; Age-related increases in DNA damage and mutations in T cells in vivo and in vitro: contributors to alterations in T cell-mediated immune response ?; EUCAMBIS: Immunology and Ageing in Europe, G. Pawelec (Editor), IOS Press, 2000; pages 54 - 66	
	CJ	Prasad, Kailash, et al.; Oxidative Stress as a Mechanism of Cardiac Failure in Chronic Volume Overload in Canine Model; J Mol. Cell Cardiol. 28, pages 375 - 385, 1996	
	CK	Abstract ZA 19960005149 19960618; Vitamin and nutrient supplements - comprising antioxidant, carotenoid and gluten, used for preventing and treating viral infections in birds, humans, cats and dogs	
	CL	Abstract JP19930254817 19930917; Prepn. contg. water-soluble hemi-cellulose and alcohol(s) - used to give flavour, taste and colour to food, pharmaceuticals, cosmetics and pet food	
	CM	Charlton, C. J., et al.; Abstract - The Influence of Age on Antioxidant Enzyme Status in Cats; Presented at FASEB/Experimental Biology Meeting, 2000 (#363.9)	
	CN	Charlton, C. J., et al.; Abstract - Glutathione Peroxidase: Assay Validation and Normal Ranges in Cats; Presented at FASEB/Experimental Biology Meeting, 2000 (#363.10)	
	CO	Charlton, C. J., et al.; Abstract - Erythrocyte Catalase Activity in Dogs; Presented at FASEB/Experimental Biology Meeting, 2000 (#363.11)	
	CP	Charlton, C. J., et al.; Abstract - Erythrocyte Catalase Activity in Cats; Presented at FASEB/Experimental Biology Meeting, 2000 (#363.12)	
	CQ	Charlton, C. J., et al.; Abstract - Assay Validation and Normal Ranges of Plasma Total Antioxidant Capacity and Vitamin C Concentrations in Cats; Presented at FASEB/Experimental Biology Meeting, 2000 (#363.13)	
	CR	Harper, E. J., et al.; Abstract - Total Plasma Antioxidants Status in Kittens; Presented at FASEB/Experimental Biology Meeting, 2000 (#363.14)	
	CS	Charlton, C. J., et al.; Abstract - Feeding an Antioxidant Fortified Diet Increases the Antioxidant Capacity of Cats; Presented at FASEB/Experimental Biology Meeting, 2000 (#521.9)	
	CT	Haq, A. U., et al.; Neonatal Immune Response and Growth Performance of Chicks Hatched from Single Comb White Leghorn Breeders Fed Diets Supplemented with B-Carotene, Canthaxanthin, or Lutein; Poultry Science 74:844-851, 1995	

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Substitute for form 1449B/PTO				<b>Complete if Known</b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)				Application Number	Not Yet Assigned
				Filing Date	November 26, 2003
				First Named Inventor	Paul R. Heaton
				Group Art Unit	N/A
				Examiner Name	Not Yet Assigned
Sheet	3	of	3	Attorney Docket Number	HO-P02375US1

CU	Haq, Akram-UL, et al.; Effect of B-Carotene, Canthaxanthin, Lutein, and Vitamin E on Neonatal Immunity of Chicks When Supplemented in the Broiler Breeder Diets; Poultry Science 75:1092-1097, 1996	
CV	Chew, Boon P.; Antioxidant Vitamins Affect Food Animal Immunity and Health; J. Nutr. 125: 1804S-1808S, 1995	
CW	Chew, Boon P., et al.; Uptake of Orally Administered B-Carotene by Blood Plasma, Leukocytes, and Lipoproteins in Calves; J. Anim. Sci. 71:730-739; 1993	
CX	MacDonald, M.L., et al.; Nutrition of the Domestic Cat, a Mammalian Carnivore; Ann. Rev. Nutr. 4:521-62; 1984	
CY	Chew, Boon P.; Symposium: Immune Function: Relationship of Nutrition and Disease Control, Vitamin A and B-Carotene on Host Defense; J. Dairy Sci 70:2732-2743; 1987	
CZ	Park, Jean Soon, et al.; Dietary Lutein Absorption from Marigold Extract is Rapid in BALB/c Mice; J Nutr. 128:1802-1806, 1998	
CA1	Chew, Boon P., et al.; Dietary B-Carotene Stimulates Cell-Mediated and Humoral Immune Response in Dogs; J. Nutr. 130:1910-1913, 2000	
CB1	Kalbfelz, Francis A., et al.; Overnutrition: An Epidemic Problem in Pet Animal Practice?; Clinical Nutrition pages 433-446, 1989	
CC1	Bendich, Adrienne; Carotenoids and the Immune Response; J. Nutr. 119:112-115, 1989	
CD1	Bendich, Adrienne; Antioxidant Micronutrients and Immune Responses; Annals New York Academy of Sciences, pages 168-180	
CE1	Sies, Helmut, et al.; Antioxidant Functions of Vitamins - Vitamins E and C, Beta-Carotene, and Other Carotenoids; Annals New York Academy of Sciences; pages 7-20	
CF1	Palozza, Paola, et al.; Communication - B-Carotene and a-Tocopherol Are Synergistic Antioxidants; Archives of Biochemistry and Biophysics, Vol. 297 (1) August 15, pages 184-187, 1992	
CG1	Schmidt, Karlheinz; Antioxidant vitamins and B-carotene: effects on immunocompetence; Am J Clin Nutr 1991;53:383S-5S	
CH1	VPN Staff Report; Antioxidants may improve pet health; Veterinary Product News; March/April 1994, Vol. 6(3)	
CI1	Antioxidant vitamin 'missing link' for pets; Feedstuffs, The Weekly Newspaper for Agribusiness; Vol. 67 (2); January 9, 1995	
CJ1	Pharmacy Update: Antioxidant Vitamins in Canine Nutrition; Veterinary Technician; November/December 1994; pages 587-589	
CK1	Machlin, Lawrence J.; Antioxidant vitamins - Role in disease prevention; Pet Food Industry; Vol. 35 (6); November/December, 1993	
CL1	Harper, E. J., et al.; Abstract - Total Plasma Antioxidants in Cats; Normal Ranges and Influence of Age; Presented at FASEB/Experimental Biology Meeting, 2000 (#446.16)	
CM1	Harper, Jean; Dietary antioxidants in cat and dog nutrition; Waltham focus, Vol 9 (2), 1999	

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